

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P802812/WO/1	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/012654	International filing date (<i>day/month/year</i>) 09.11.2004	Priority date (<i>day/month/year</i>) 20.11.2003
International Patent Classification (IPC) or national classification and IPC G05D1/02 B62D1/28		
Applicant DAIMLERCHRYSLER AG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-4, 6-13, 15, 16 as originally filed/furnished
- pages* 5, 14 received by this Authority on 01.06.2005 with letter of 25.05.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-20 received by this Authority on 01.06.2005 with letter of 25.05.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/2, 2/2 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-20</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-12, 19, 20</u>	YES
		Claims <u>13-18</u>	NO
	Industrial applicability (IA)	Claims <u>1-20</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	<p>1. The application relates to a device for controlling a vehicle's travel along a lane, a selection device, and a process for determining the travelling lane of a vehicle. The application is therefore clearly industrially applicable.</p> <p>2. Independent claim 1:</p> <p>2.1 Novelty</p> <p>Document D2 is regarded as the prior art closest to the subject matter of claim 1. It discloses a travel controlling device from which the subject matter of claim 1 differs in that the evaluation means filters disturbing information caused by vehicles in the area of the travelling lane or discontinuities of the reference body out of the distance data, and the travelling lane data are determined depending on the filtered distance data.</p> <p>The novelty of the claimed subject matter is therefore established by these features.</p>		

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2.2 Inventive step:

The present invention can therefore be considered to address the problem that, when the position and orientation of the vehicle are determined, the distance signal measured by the distance measurement device is disregarded as such if the analysis of the measured distance signal shows that the signal contains undesirable disturbances. In that case, therefore, the measured distance signal is "blended out", and is no longer available for assisting the autonomous travelling of the vehicle. Precisely when relatively minor disturbances occur, this represents an unnecessary limitation.

On the contrary, in the case of claim 1 the measured distance signal is retained as such for determining travelling lane data, since here only the disturbances superimposed on the distance signal are filtered out, i.e. "blended out".

These features cannot be found in any of the citations, and the cited prior art does not suggest including these features in the device known from document D2.

Moreover, these features would not be conventional measures for a person skilled in the art.

The subject matter of claim 1 is therefore considered inventive.

2.3 Claims 2-12 and 19 are thus also considered novel and

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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inventive.

3. Independent claim 20:

The process claim 20 is analogous to the device claim 1, and therefore also meets the requirements of PCT Article 33.

4. Claims 13-15:

A person skilled in the art developing a travelling control device of the type known from document D2 would in any case use the sensors which are already available in a vehicle, for known economic reasons (see document D5, column 1, lines 28-31). Documents D4 and D6, in which the same sensors are used in the parking aid and in the lane tracking device, would suggest this combination. A person skilled in the art would also know that a selection device must be provided to switch from one mode of operation to another. A person skilled in the art would therefore consider the inclusion of these features (to use sensors used for parking for a different purpose) in the device known from document D2 a conventional measure. The additional features of claims 13-15 thus do not lead to an inventive subject matter.

5. Claims 16, 17:

The use of a program, processor or storage means in a selection device is a conventional measure for a person skilled in the art. The additional features of claims 16 and 17 thus cannot be considered inventive.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
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6. Dependent claim 18 relates to a minor structural modification of the device as per claim 13 of the kind which a person skilled in the art routinely makes, on the basis of familiar considerations, especially since the advantages achieved thereby are easily foreseeable. Consequently, the subject matter of claim 18 also fails to involve an inventive step.